PIXFIX™LIVE- HE Series

PIXFIX™-LIVE HE series are ENCODE/TRANSCODE juggernauts with enough power to handle multiple SDI/ASI/IP inputs starting from as much as 4 live channels. HE-Series gives the best cost per stream for large scale applications. Suited for large broadcasters, MSOs, CDNs and TELCOs, HE-series is a must for dealing with multiple channels. These ENCODERS/TRANSCODERS have RiverSilica's patented algorithms which provide intelligent video optimization for ENCODING and TRANSCODING.

Applications

PIXFIX™-LIVE HE Series deliver encode/transcode performance with **PIXFLEX™** its state of the art software driven media processing engine for enterprise level needs — that start from 4 channel broadcasters who want multi-screen streaming capabilities and to those market segments who want non-stop IP Video delivery capabilities.

Broadcasters

For those Broadcasters who are looking for minimum 4 channel uplink for multi-screen, multi-format capability with plethora of bit rates- the answers lies in using HE-series hardware. Coming with redundancy at all level, answers the call of non-stop video delivery with heavy hitting capabilities.

Multi System Cable Operators, CDNs, Data Centers, TELCOs etc.,

If one's need is to deliver starting from a minimum of 16 channels to as many you need, you can aggregate PIXFIX™ LIVE-HE series to deliver the best cost per stream delivered. With PIXFIX™ LIVE-HE series you can be assured of the best in class optimized quality and the fastest ROI.

Features and Benefits

- Encoding and Transcoding through state of the art PIXFLEX™ engine.
- Highly configurable, through software based media processing and acceleration mechanics using RAFT™, SAND™ and HELM™ video algorithms.
- Flexible input interfaces across SDI, IP and multiple other types of interfaces.
- Output Multi bit rate management through PIXABIT™ offering granular multibit rate outputs.
- Backup video storage and IP redundancy available through PIXSAFETY™.
- Dynamic profile management through PIXMAX™.
- Video quality management through PIXIT™.







PIXFIX™ LIVE HE3160

PRODUCT AT A GLANCE

Enterprise grade Encoders and Transcoders for Live video delivery for Multi format multi screen applications for your broadcasting, data center, telco and cable delivery needs.

MODELS

 Enterprise class PIXFIX™ LIVE-HE 3160 delivers you the required performance for up to 4 SDI inputs or 12 IP inputs for multi bit rate multi format delivery with host of redundancy features.

Features and Benefits (continued)

- Multi Codec /Multi format available for any type of IP Video stream delivery.
- Enterprise class 1RU rack mountable.

General specifications for HE3160

INPUT INTERFACES

 Composite, Component, HDMI with Embedded Audio, S-Video, DVI, ASI, SD/HD-SDI with embedded raw or compressed (Dolby™) audio, Multiple Gigabit IP interface

INPUT STREAM

- TS/ UDP (Unicast and multicast SPTS and MPTS)
- TS/RTP (Unicast and multicast SPTS and MPTS)
- TS/HTTP-SPTS and MPTS
- o RTMP, RTSP, HLS, TCP
- H.264 elementary-Annex B MPEG2 PS. MPEG TS,MKV
- o MOV, MP4, MXF, Apple Prores, FLV

INPUT VIDEO CODECS

- MPEG2-ML/HL 4:2:2,
- MPEG4 SP/ASP,
- H264 BP/MP/HP 4:2:2 10Bit,
- AVC Intra, Apple Prores,
- o HEVC, VC1
- o Fixed and variable frame rate
- Standard and non-standard resolution
- o 1080p@60 up to 25Mbps for live delivery
- Error resilience and concealment for erroneous input

INPUT AUDIO CODECS

- AC3, Dolby[™]-E, DTS express[™]
- o AAC-MPEG2,
- o MPEG4 (LC, HEAAC, HEAACv2),
- MPEG4 ALS,
- o WAV,
- o Up to 8 channels 24 bit audio,
- Up to 96KHz sampling frequency

STREAMING SERVER PROTOCOL (OPTIONAL)

- o HLS
- o HDS
- Smooth Streaming
- o DASH
- o RTMP



OUTPUT INTERFACES

 SD/HD-SDI, Multiple Gigabit IP interface with redundancy, ASI, Composite

OUTPUT STREAM

- TS/UDP/RTP Unicast & Multicast, SPTS TS/RTP Unicast & Multicast, SPTS TS/HTTP-SPTS
- o RTMP uplink to popular CDNs
- o TCP/IP
- MPEG2, H.264 elementary Annex B TS, MPEG-PS, MP4, MOV, FLV, MKV

OUTPUT VIDEO CODECS

o H.264 BP/MP/HP 4:2:2 10 Bit

OUTPUT AUDIO CODECS

- o MPEG 1 Layer2/3
- AC3 (pass through), EAC3 (pass through), Dolby™-E (pass through), DTSTM (pass through)
- o AAC-MPEG2
- AAC-MPEG4 (LC, HEAAC, HEAACv2) MPEG4 ALS, WAV, LPCM
- o Up to 8 channel, 24 bit audio
- Up to 96 KHz sampling frequency
- Loudness Control
- Multi-channel audio coding in single channel

PRE-PROCESSING, ENCODING & MISC FEATURES

- o Standard and non-standard resolution
- Hue, Contrast, brightness, saturation and gamma correction
- Dynamic profile management through PIXMAX™
- On the fly transcode through PIXIT™
- Encode, Transcode acceleration through RAFT™,
 HELM™, SAND™ algorithms
- De interlacing through BOB, Motion adaptive, IVTC modes
- o Perceptual quality based video scaler
- Multiple alpha blended logo overlay
- Static/scrolling text overlay
- Clock/Running time overlay
- Cropping/Letter boxing

- o RTSP
- HTTP Fragments Push to edge server
- o HTTP origin configuration for caching

PLATFORM SPECIFICATIONS: HE3160

- 4 X SD/HD SDI Input or 12 X IP Input
- 2 X Gigabit Ethernet output
- 1RU form factor
 - o 1.7" X 17.2" X 19.85"
 - o 43mm X 437mm X 509mm
- 400W SMPS Redundant
- 110-240V input
- 1TB storage
- Built in RAID
- Optional
 - o Up to 6TB available
 - o WLAN
 - o Fiber interface to SAN
 - High availability through PIXSAFETY™
- Rack mountable

- Look ahead based encoding
- Low latency encoding
- Deblocking filter
- o CBR, VBR and constrained VB streams
- Scene characteristics based encoding
- Configurable display aspect ratio and preserving DAR during scaling
- o Thumbnail generation
- o CEA 608/708 pass through
- Lip Sync correction
- Delayed output for render/playback synchronization
- Host of appliance control, monitoring and HW diagnostic features

